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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,198	02/06/2004	Thomas Q. Gurski	2229/139	6999

2101 7590 02/23/2007  
BROMBERG & SUNSTEIN LLP  
125 SUMMER STREET  
BOSTON, MA 02110-1618

EXAMINER
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NGUYEN, HOANG M

ART UNIT	PAPER NUMBER
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3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/774,198

Applicant(s)

GURSKI ET AL.

Examiner

Hoang M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 03-02-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-8 are vague and indefinite because it's unclear how many valves are being claimed. Independent claim 1 seems to recite only one valve, but claims 4-7 seem to recite many valves. If more than one valve is recited, please use the language such as "first valve", "second valve", "third valve", or "a valve assembly having first and second valve elements".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8, 11-17, are rejected under 35 U.S.C. 102(b) as being anticipated by US 5177968 (Fellows).

Fellows discloses a Stirling engine comprising a crankcase 3, work space 2, many valves 16, 17, 19, 20 to allow pressure regulating between the crankcase and the work space, the pressure relief valve 20 permitting fluid flow between the crankcase and the work space when the pressure difference more than a predetermined value (note column 5, lines 44-47).

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Claims 1-20, are rejected under 35 U.S.C. 102(b) as being anticipated by US 5755100 (Lamos).

Lamos discloses a Stirling engine comprising a crankcase 10, work space in a working cylinder, many valves 40, 52, to allow pressure regulating between the crankcase and the work space and permitting fluid flow between the crankcase and the work space when the pressure difference more than a predetermined value (note column 4, lines 39-57, and column 7, lines 8-22).

Claims 1-, 3-11, 13-20, are rejected under 35 U.S.C. 102(b) as being anticipated by US 4179891 (Gronvall).

Gronvall discloses a hot gas engine comprising a crankcase 1, work space in a working cylinder, many valves 35, 52, to allow pressure regulating between the crankcase and the work space and permitting fluid flow between the crankcase and the work space when the pressure difference more than a predetermined value (note column 3, lines 21-32).

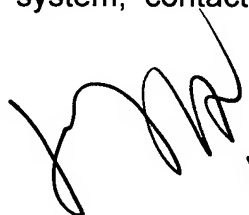
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goldman, Woody, Moren, Bosley, disclose Stirling engine comprising pressure regulating and/or pressure equalizing valves.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
2/16/07

HOANG NGUYEN  
PRIMARY EXAMINER  
ART UNIT 3748

Hoang Minh Nguyen  
2/16/2007